



Imaging

SIGNIFICANT INCREASE IN CARDIAC EVENTS AT TWO YEARS AFTER SPECT MYOCARDIAL PERFUSION IMAGING IN OUTPATIENTS WITH DIABETES: IMPLICATIONS FOR FUTURE TESTING

Poster Contributions

Poster Sessions, Expo North

Monday, March 11, 2013, 9:45 a.m.-10:30 a.m.

Session Title: Prognostic Implications in Nuclear Imaging

Abstract Category: 21. Imaging: Nuclear

Presentation Number: 1315-356

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Background: An extensive prognostic literature has identified a warranty period of 3 years during which the risk of events is low after a normal SPECT myocardial perfusion imaging (MPI) study. However, patients with diabetes are known to have a higher annualized event rate than non-diabetics. We examined the risk of cardiac events over time stratified by the presence of ischemia on the index MPI.

Methods: We identified 575 consecutive outpatient diabetic patients referred for SPECT MPI. Five subjects were censored for early revascularization. The remaining 570 had chart review and prospective contact for cardiac events, including cardiac death, nonfatal MI, and late revascularization (>90 days). The event rate was examined using Kaplan-Meier methodology and Chi-square analysis to compare the <2 and after 2-year rates.

Results: The 575 consecutive patients with diabetes had a median age of 61; 71.1% were symptomatic and 40.3% had prior known CAD. There were 92 cardiac events over a median follow-up of 4.4 years, 77.2% of which occurred 2 years after the index MPI study. The annualized rate of cardiac events increased 2.9-fold from 1.8%/year for the first 2 years to 5.3%/year thereafter ($p=0.004$). Ischemic patients had a higher event rate and a similar increase at 2 years (see figure).

Conclusions: There is a marked increase in events after 2 years in diabetics with and without ischemia that may affect future testing decisions. The explanation for the increased rate deserves further investigation.

